Street Fight, by Elzie Golden, oil on canvas, Iraq, 2003.
Art: Courtesy of the Army Art Collection, US Army Center of Military History

Chapter 7

FORENSIC ASPECTS OF POSTTRAUMATIC STRESS DISORDER

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INTRODUCTION

Forensic psychiatry has intersected with posttraumatic stress disorder (PTSD) since the inception of the disorder, and its principles are well suited to the diagnosis, treatment, and legal overlay of PTSD. Recent controversies about the use of forensic principles in the diagnostic process associated with military disability and vigorous defenses of accused service members proposing insanity, reduced capacity, or mitigating circumstances have highlighted this subject in congressional hearings, investigations, and the press. A forensic evaluation program at Madigan Army Medical Center was shut down after changing PTSD diagnoses to diagnoses of noncompensable illness in several dozen Army soldiers.[1] Traumatic brain injury (TBI) or PTSD-oriented defenses of defendants accused of murder, including the case of an Army sergeant accused of murdering 17 Afghani civilians, seem inadequate in the face of what may be war crimes.[2] However, the field is buttressed by a wide body of research, time-tested practice principles, and case law.

This chapter discusses the diagnosis, epidemiology, treatment, and pathophysiology of PTSD from a forensic mental health science standpoint, and then covers three branches of study:

1. military and civilian jurisprudence;
2. the military and Veterans Affairs (VA) Disability Evaluation System; and
3. the special case of malingering, which is addressed with some vigor in military circles because of its alarming effects on military order and discipline.

Definition of Posttraumatic Stress Disorder

PTSD, which is classified as an anxiety disorder, is a bona-fide medical illness and among several psychiatric illnesses that have validated clinical criteria. PTSD is a clinical diagnosis that is based on the presence or absence of 17 diagnostic criteria, in several subsets, including exposure to a traumatic event (a stressor), intrusive recollections about the traumatic event, avoidance behaviors or numbing stemming from cues to the trauma, and hyperarousal symptoms that were not present before the trauma. There are also criteria that specify the presence of functional limitations and presence of symptoms for more than 1 month, and those that pertain to acute or chronic symptoms, and whether these symptoms were delayed in onset.

Clinicians who diagnose PTSD, including psychiatrists, psychologists, social workers, and nurse practitioners, should be rigorously trained on how to garner diagnostic data, collateralize data sources, collect reliable measures of pathology including psychological testing, and confer diagnoses. For individuals identified with PTSD, a period of diagnostic clarification ensues after an initial diagnosis.

The fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)* recognizes that diagnoses often cannot be conferred with accuracy immediately.[3] In these cases, it allows for both provisional diagnoses, which may be removed as more data accrue, and diagnoses that are "not otherwise specified," such as "anxiety disorder NOS," which may be changed to a more specific anxiety diagnosis, such as PTSD, as observation and treatment continues. Diagnoses are often modified or changed as patients are observed and treated. See Exhibit 7-1 for *DSM-IV*'s criteria for PTSD.

Diagnosis of Posttraumatic Stress Disorder

There is a wide range of opinion regarding sensitivity or the ability to find a person with a diagnosis who truly has the condition—or a "true positive" case—and specificity, or the ability to identify persons without a particular diagnosis—or a "true negative" in behavioral health diagnoses—including PTSD. Some of the variation stems from the nature of behavioral health diagnoses because a diagnosis is most often based on retrospective, memory-based data, which are sometimes thinly sourced (ie, from the patient alone). A "gold standard" for comparison of the "test," or heuristic regimen the clinician uses to arrive at a diagnosis, is lacking. In other words, there is no laboratory assay, neuroimaging examination, or other physical test that "rules in" a PTSD diagnosis. Likewise, the consistency of diagnoses conferred between clinicians—or inter-rater reliability—is often unfavorably evaluated in the behavioral health literature. Inter-rater reliability is often not as good in behavioral health as in other disciplines, which often have laboratory-based gold standards (eg, a low red blood cell count on a blood test for anemia).

When there is an issue regarding whether a particular behavioral health diagnosis exists in a service member to be separated, Department of Defense (DoD) policy dictates that a medical diagnosis must be evaluated to ascertain fitness for retention before consideration for separation. The National Defense Authorization Acts of 2008 and 2010 mandated that policies be established to favor PTSD or TBI diagnoses over other diagnoses, such as adjustment disorders or personality disorder. Concomitantly, the bar for separating a service member under the rubric of personality disorder was raised significantly, especially if a service member has deployed. A *New York Times* article in 2012

EXHIBIT 7-1

DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS FOURTH EDITION TEXT REVISION CRITERIA FOR POSTTRAUMATIC STRESS DISORDER

Criterion A: stressor
The person has been exposed to a traumatic event in which both of the following have been present:

1. The person has experienced, witnessed, or been confronted with an event or events that involve actual or threatened death or serious injury, or a threat to the physical integrity of oneself or others.
2. The person's response involved intense fear, helplessness, or horror. Note: In children, it may be expressed instead by disorganized or agitated behavior.

Criterion B: intrusive recollection
The traumatic event is persistently re-experienced in at least one of the following ways:

1. Recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. Note: In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.
2. Recurrent distressing dreams of the event. Note: In children, there may be frightening dreams without recognizable content.
3. Acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur upon awakening or when intoxicated). Note: In children, trauma-specific reenactment may occur.
4. Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.
5. Physiologic reactivity upon exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

Criterion C: avoidant/numbing
Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by at least three of the following:

1. Efforts to avoid thoughts, feelings, or conversations associated with the trauma
2. Efforts to avoid activities, places, or people that arouse recollections of the trauma
3. Inability to recall an important aspect of the trauma
4. Markedly diminished interest or participation in significant activities
5. Feeling of detachment or estrangement from others
6. Restricted range of affect (eg, unable to have loving feelings)
7. Sense of foreshortened future (eg, does not expect to have a career, marriage, children, or a normal life span)

Criterion D: hyper-arousal
Persistent symptoms of increasing arousal (not present before the trauma) indicated by at least two of the following:

1. Difficulty falling or staying asleep
2. Irritability or outbursts of anger
3. Difficulty concentrating
4. Hyper-vigilance
5. Exaggerated startle response

Criterion E: duration
Duration of the disturbance (symptoms in criteria B, C, and D) is more than 1 month.

Criterion F: functional significance
The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if:
Acute: if duration of symptoms is less than 3 months
Chronic: if duration of symptoms is 3 months or more

Specify if:
With or without delay onset: onset of symptoms at least 6 months after the stressor

Data source: American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders* (4th ed, text rev). Arlington, VA: ApA; 2000.

related that since DoD tightened its requirements, personality disorder discharges have declined from 4,264 in 2007 to 1,078 in 2010.[4]

In PTSD cases where criminal or civil legal matters may ensue, including referral to civilian courts or courts-martial, administrative mitigation of wrongdoing, or matters of clarity in regard to functional limitations stemming from an occupational disability, a military forensic psychiatrist or psychologist can assist civilian and military courts or administrative bodies to clarify what impact, if any, PTSD may have. The most helpful forensic expert will have a comprehensive understanding of DoD and VA Disability Evaluation System rules for PTSD, civilian and military legal systems, force and command structures in the military, and PTSD epidemiology and treatment.

Impact of Posttraumatic Stress Disorder

Ascertaining the impact of PTSD is complicated by many factors. Some studies report data collected in health assessments, retrospective interviews, or anonymous questionnaires, which are more useful for screening than diagnosis or treatment. Barriers to care include a shortage of qualified professionals in some areas and a stigma associated with seeking or receiving care.[5] Both of these issues are being vigorously addressed. In 2011 DoD issued an instruction aimed at destigmatizing care provision.[6] The Military Health System invested approximately $2.7 billion from fiscal year (FY) 2007 to FY 2010 for research and treatment of psychological health and TBI issues.[7] By 2012 the Military Health System had increased its psychological health billets to 9,150 clinicians, including psychiatrists, psychologists, social workers, registered nurses, psychiatric nurse practitioners, psychiatric technicians, and counselors. Eight thousand nine hundred of these positions (97%) were filled in mid-FY 2012.[8]

Epidemiology

PTSD diagnoses are increasing in the military service, undoubtedly in tandem with the demands on service members engaged in years-long wars. A 2012 US Army Medical Command instruction estimated that PTSD occurs in 3% to 6% of service members with no deployment experience and in 5% to 25% of service members who have been deployed to combat zones, with combat intensity and frequency most likely to herald the condition.[9] However, the nature of problems surrounding PTSD may differ from those portrayed in the media. A typical media report may describe PTSD occurrence in terms that may overstate its prevalence or impact in the military population. The lay reader is rarely attuned to the fact that not all service members deploy, and that among those who do—while most deaths are combat related—only a fraction of them (perhaps 10%) see combat. Yet, others including healthcare providers, mortuary workers, and sustainment personnel, may be exposed to precipitants of PTSD. Significantly, only a minority of service members is traumatized by the horrors of war to a point of functional disturbance. A careful epidemiological study prepared by the Office of the Deputy Assistant Secretary of Defense for Force Health Protection and Readiness, which used inpatient and outpatient encounter records and described a PTSD case as one inpatient encounter or two outpatient encounters with the diagnosis conferred, revealed that the prevalence of documented PTSD in the active military component was 2.0% in the middle of calendar year (CY) 2010.[5] This was an increase from 1.2% in CY 2007. Incident diagnoses changed slightly during the period, from 0.81% to 0.97%.[5] Given that PTSD is a service-limiting illness, the difference between incidence (little changed) and prevalence (increasing) may be attributed to several factors:

- increased times to process disability cases;
- more propensity to treat cases to a point where functional limitations are absent and return to duty is tenable;
- the natural course of the disorder favoring full or partial recovery; or
- evolving criteria for diagnosis or retention of service members presenting with posttraumatic symptoms.

Treatment of Posttraumatic Stress Disorder

Current PTSD treatment is divided among prevention efforts, such as resilience training, nonpharmacological therapies primarily in the realm of cognitive behavioral therapy (CBT), and medication management. Military services have made sustained efforts to address PTSD diagnoses and treatment. In 2010 a wide-ranging clinical group was convened and a VA-DoD Clinical Practice Guideline Update for PTSD was issued, updating algorithms for evaluation and treatment of traumatic stress in multiple settings, including combat and primary care.[10]

Resilience Training

The concept that individuals grow from hardship is culturally sanctioned but not well studied. In 2008 the Army leveraged this concept in a comprehensive soldier fitness program, which was introduced in 2010 without any pilots or studies. The $125 million, 5-year

study was designed to be quickly implemented, and subsequent research efforts faced inherent hurdles, including the fact that universal implementation removes the possibility of using control groups to assess outcomes. However, the program has solid theoretical underpinnings and covers five key domains of functioning: (1) physical, (2) social, (3) emotional, (4) family, and (5) spiritual; and it stresses core principles—seeing events as neutral as opposed to good or bad, focusing on the reaction to the trauma rather than the stressor itself, and assessing possible outcomes.[11] The utility of assessing emotional reactions and possible outcomes has been made known in many long-validated therapies, such as five-step problem solving.

DoD has made significant investments in resilience training and research, including a resilience directorate in its Defense Center for Excellence in psychological health and TBI. Efforts to improve these techniques are ongoing.

Nonpharmacological Therapy

Therapeutic avenues for PTSD treatment have worn several paths:

- dynamic or insight-oriented approaches;
- interpersonal approaches;
- alternative approaches;
- heavily marketed or guild-specific strategies, such as eye movement desensitization and reprocessing; and
- rigorously tested and validated strategies, including many CBT techniques.

Insight-oriented approaches are rarely used for PTSD treatment in clinical areas under DoD or VA purview because the evidence base for insight-oriented therapies is thin, and the cohort of experienced practitioners has waned as advancements in the behavioral health field have deviated from earlier dynamic techniques. Interpersonal techniques mediated through specific therapy or social support have shown promise, but are not widely used.

Studies of popular complementary and alternative medicine approaches, such as hyperbaric oxygen therapy, homeopathy, or acupuncture, often lack appropriate control groups or have other design flaws; and well-designed studies have often failed to reject the null hypothesis or show an effect that can be attributed to the intervention. Some alternative treatments, including charismatic rituals or "rebirthing" for developmental trauma, are ineffective and potentially dangerous. Guild associations have deemed some of these methods as unethical.

Eye movement desensitization and reprocessing has been shown to be effective in some scientific studies and meta-analyses, but some marketing practices and a dubious theoretical basis for the eye movement component of the therapy have led many clinicians and researchers to reject it.[12] It is commonly used in many nonmilitary treatment entities, including VA treatment centers. CBT appears to be gaining the lion's share of clinical and research interest. Consistent with the bulk of PTSD treatment efforts in the medical and social services communities, military services made consistent and sustained efforts to train clinicians in CBT and exposure-based branches of CBT, such as prolonged exposure therapy or cognitive processing therapy.[13]

Such therapies, which in some ways resemble longer-standing "trauma-focused" CBT efforts, share benefits. A range of provider types can deliver the therapy; the therapies are well tested in military populations; each therapy is proven against wait-list controls; and exposure regimens comprise a large component of the therapies, potentially "resetting" the brain's fear center more expeditiously than "tincture of time." Additionally, these therapies are manualized, making it easier to foster competence in clinicians and fidelity to the treatment protocol. In the meantime, briefer forms of exposure therapies, such as writing trauma narratives alone, are being tested and initial results are promising. However, therapy is work, and some patients are not inclined to therapy or cannot otherwise tolerate the challenges of therapy.

Medications

There is a longstanding and solid evidence base for treating PTSD with antidepressants, such as the Food and Drug Administration-approved medications sertraline or paroxetine, which clinically are also anxiolytics. Although sertraline or paroxetine are the only medications approved by the Food and Drug Administration to treat PTSD, off-label use of the other antidepressants is clinically sound. However, effect sizes in randomized, controlled trials of selective serotonin reuptake inhibitors are often lower than those in psychotherapy trials.[14] The VA-DoD Clinical Practice Guideline discusses several other drug classes for PTSD treatment. Central nervous system depressants (eg, zolpidem, clonazepam, lorazepam, or diazepam) and other drugs (eg, diphenhydraminel, trazodone) may be used as somnolents for the insomnia that often occurs with PTSD; and one drug, prazosin, may alleviate nightmares in some PTSD sufferers. Clinical reports of parasomnias stemming from zolpidem use, including engagement in complex motor behaviors such as eating or driving while asleep, are abundant; and the

suggestion that somnolent use led to nonvolitional criminal behavior, or exacerbated an offense, has been proposed as a rationale for mitigation or nonculpability in PTSD defenses.

Antipsychotics, which are likewise commonly used as sleep adjuvants, are used for PTSD as standalone treatment, or in conjunction with a serotonin reuptake inhibitor. The use of atypical antipsychotics in conjunction with antidepressants is clinically reasonable, with several arguments backing this assertion. First, many patients with PTSD suffer from depression, and many atypical antipsychotics are approved as adjuvant treatments for depression. Second, some research suggests that some atypical antipsychotics may reduce the rate of suicide completion in patients treated with them, and PTSD and depression are each associated with suicidality.[15] Third, antipsychotics do not have significant pharmacodynamic interactions with other classes of psychiatric drugs, especially antidepressants. Fourth, these drugs have sedating effects, with low abuse potential, and they are often chosen instead of central nervous system depressants as sleep adjuvants, especially in members who have substance use issues. US Central Command specifically added quetiapine in low doses (25 mg) to its formulary as a suggested somnolent for deploying troops with insomnia.

The use of atypical antipsychotics for PTSD has become controversial, and this controversy has become well discussed in the press, with some commentators suggesting that it caused aberrant behavior in PTSD sufferers or an epidemic of chronic, disabling PTSD. A 2011 article, "Drugs found ineffective for veterans' stress," in the *New York Times* focused attention on the ongoing issue of atypical antipsychotic use and PTSD treatment.[16] This lay review of a *Journal of the American Medical Association* study regarding the use of risperidone for PTSD[17] noted that the addition of risperidone to a current treatment regimen, which may include antidepressant treatment, provided no benefit over placebo. Senator James Inhofe, a senior member of the Senate Armed Services Committee, responded and said "these results are disappointing but not surprising," repeating concerns from an earlier communication that use of "medication cocktails" was directly contributing to the poor mental and physical recovery of wounded service members and veterans.[18]

Particular attention has focused on the percentage of service members with prescriptions for atypical antipsychotics that increased tenfold in less than a decade, from 0.1% in CY 2002 to 1.0% in CY 2009. Quetiapine, the most commonly prescribed atypical antipsychotic, was prescribed to 1.4% of Army soldiers and 0.7% of Marines in FY 2010.[19] In 2011 and 2012 the assistant secretary of defense for health affairs distributed guidance memoranda alerting military leaders to focus on evidence-based therapeutic interventions for PTSD and monitor the use of neuroleptics by their providers.[13,20]

Pathophysiology of Posttraumatic Stress Disorder in the Psychiatric-Legal Context

The service member or veteran who suffers from PTSD symptoms often comes to the attention of forensically trained practitioners through three primary avenues:

1. legal difficulty, perhaps stemming from impulsive or violent acts;
2. difficulty navigating the VA Disability Evaluation System; or
3. an accusation of malingering.

Although any of the 17 diagnostic criteria for PTSD can be incapacitating, Silva, Derecho, Leong, Weinstock, and Ferrari[21] described four major sequelae of the syndrome that may be used to explain violent behavior: (1) flashbacks, (2) sleep disturbances, (3) mood lability, and (4) combat addiction (the latter two are not diagnostic criteria for the illness, but are often described by sufferers).[21] Military clinicians often see anger in their PTSD patients. Other manifestations of PTSD in the domains of avoidance behaviors, memory deficits, and hyper-arousal symptoms mark the protean ills of PTSD patients who suffer the associated social and occupational humiliations.

Stress-diathesis models have been proposed for PTSD and common comorbidities, including depression, TBI, substance abuse, and personality pathology, which cross lanes of nosology and phenomenology. This situation leads to questions of accountability, responsibility, and culpability in administrative and legal forums. A brief discussion of the pertinent pathophysiology of PTSD focusing on validated research findings follows.

Recent neuroimaging research has resulted in advancements in understanding the structure and function of three important brain areas in PTSD:

1. the amygdala,
2. the hippocampus, and
3. the medial prefrontal cortex.[22]

The amygdala, or "fear center" of the brain, appears to have heightened reactivity during symptomatic states and its responsivity positively correlates with PTSD severity. The medial prefrontal cortex, which processes emotional tasks and like other areas of

the prefrontal cortex tends to modulate impulsive behavior, is comparatively smaller in PTSD patients and hyporesponsive during symptomatic states. The hippocampus appears to be smaller and has reduced functional integrity in patients with PTSD.[22] Vythilingam et al found that the hippocampal head was significantly smaller in Persian Gulf War veterans with PTSD and that this group had lower scores on immediate and delayed verbal and visual retrieval tasks compared to healthy civilians.[23] Vis-à-vis Silva's description of behavioral sequelae to PTSD, flashbacks may be mediated through memory-based (hippocampal) processes, and prefrontal cortex pathology is associated with many forms of mood lability, including forms seen in patients with bipolar disorder, personality disorders including antisocial or borderline personality disorders, impulse control disorders, TBI, and developmental disorders. Alternatively, prefrontal cortex function deficits are associated with depressed mood, which can be manifested as major depressive disorder, a commonly comorbid condition to PTSD.

Many have suggested, including senior military officials in congressional testimony, that TBI or repeated concussive injury may predispose some combatants to PTSD, although research findings have been controversial.[24] PTSD, like many anxiety disorders, is associated with poor sleep, and research regarding the mechanisms of sleep disturbance in this cohort is in nascent stages. Substance use disorders have long been associated with reward system dysregulation, with deficits described from the ventral tegmentum to nucleus accumbens and cortical projections.[25]

"Combat addiction" may fall under a similar rubric. Interestingly, war-traumatized individuals hailing from different countries may manifest posttraumatic symptoms differently, with some cohorts manifesting increased substance use, others manifesting the melancholic and involutional symptoms of major depressive disorder, and still others manifesting PTSD.[26] Any of these symptom complexes can predispose a sufferer to occupational, social, or legal problems.

Posttraumatic Stress Disorder as a Defense

In the past quarter century, PTSD has been regularly introduced in the defense and sentencing of service members pursuant to courts-martial, but no data indicate whether PTSD defenses have resulted in increased acquittal rates or systematically reduced sentences in these proceedings. PTSD is often seen by defense and trial counsel and military jurors as either a contributing factor in the commission of crimes or a basis for mitigating sentences, even for misconduct cases involving undesirable behavior, lying, or fraud. The bulk of interest in this area surrounds the use of PTSD as a defense for serious crimes. Although there does not appear to be any documented case where a soldier's PTSD has resulted in a not guilty verdict at courts-martial, the practice of introducing this condition may have more utility in military versus civilian courts.[27]

The association of flashbacks in which criminal behavior or violence occurs when a veteran feels endangered again is never an assured defense—prosecutors can often elucidate patterns of criminality (or antisocial personality) or substance abuse, which do not merit a reduction of culpability, as more relevant precipitants to a crime. Stress associated with combat exposure is used as mitigating evidence in capital cases, and possible PTSD has been used as a basis for departure from federal sentencing guidelines.[28]

Posttraumatic Stress Disorder and Disability

Victims of criminals, who subsequently develop PTSD or other psychiatric disorders, may sue for compensation under tort litigation.[29] Criminal victimization is considered an injury that stems from a wrongful act, and it thus potentially entitles the victim to compensation for damages. Claims for mental damages must pass through a gauntlet of tests, including a defendant's likelihood of having committed the act (which does not require a finding of criminal guilt), proximate causation of a reasonably foreseeable injury, and a verifiable injury itself. In many cases a subsequent physical impact or derangement also must be proven.

PTSD claims have risen to the forefront in recent years because the disorder often meets the requirements of these tests.[30] PTSD, by definition, is caused by an external event, and PTSD incidence has been correlated with the severity of trauma in both civilian and military cohorts. A high amount of war zone exposure, including combat, mortuary registration, and the giving or receiving of battlefield medical treatment, dramatically increases the risk of PTSD.[31] PTSD also has been codified as a mental disorder since it was included in *DSM-III*.[32]

Civilian employees of businesses that offer disability indemnification are entitled to compensation when functional limitations stem from occupational insults. Compensation of military members suffering from PTSD falls under a different rubric. Although tort claims from military cohorts have been entertained in other countries,[33] US military personnel are forbidden from this action. Rather than burdening the courts, a comprehensive system of relief is authorized by a statutory assignment, known as the "Feres doctrine," which

accepts for the government liability under circumstances that would otherwise incur private liability.[34]

Members with PTSD or other psychiatric illness who suffer from functional limitations that render them unfit for continued service are referred to a medical evaluation board that consists of at least one psychiatrist or psychologist of mid-grade officer rank (major or lieutenant commander), its civilian equivalent (GS-11), or higher rank.[35]

A finding of unfitness leads to a case referral to a service's physical evaluation board (PEB). This board, which includes officer members of the tactical community and the medical community, weighs medical evidence, descriptions of functional limitations, and command input in its determination, which can include return to duty, unfitness without compensation, or unfitness with disability compensation. A service member with a disability rating of 30% to 80% merits ongoing disability payments, eligibility for military medical care, and placement on a temporary retired list, whereas the VA makes a permanent disability determination. Disability findings of less than 30% result in severance pay, whereas findings of 80% or greater warrant immediate retirement without a redetermination of fitness for duty. In practice, redeterminations of members on the temporary retired list rarely lead to repatriation into the active duty service.

Since 1946 the VA has abided by an administrative rule that when a mental disorder develops on active duty as a result of a highly stressful event, its rating agency shall assign a disability rating of at least 50%. From the onset of Operation Iraqi Freedom in 2001 to the continuation of the operations in Iraq and Afghanistan in Operation Enduring Freedom, controversy existed in regard to the pertinence of the ruling to cases of PTSD and TBI. The 50% rule was codified into public law in the National Defense Authorization Act of 2008 (Pub L 110-181) and incorporated into military policy in October 2008.[36]

A finding by a PEB that did not meet this standard was successfully challenged in federal court in 2010.[37] The Army PEB found Dennis Martinez, a soldier in the US Army, to have two disabilities, chronic wrist pain and PTSD, that rendered him unfit for continued service. Considering the impairments mild, the PEB awarded him 10% disability compensation for each, for a total disability finding of 20%, which justified a severance payment but no medical retirement. Martinez successfully argued that the presence of a PTSD finding warranted a 50% disability determination, allowing him to collect annuity payments and receive medical care for life.[37]

PTSD disability determinations have been controversial. Even before the Operation Iraqi Freedom/Operation Enduring Freedom resulted in mass mobilizations and repeated deployments of service members, the percentage of PTSD cases increased significantly from October 1998 to September 2004.[38] Although disability compensation was awarded to only 12.2% more veterans over the period, the number of PTSD cases increased by nearly 80% to exceed 215,000 cases. PTSD benefits payments increased nearly 150% to $4.3 billion per year.[38] The VA inspector general (IG) found inconsistencies in methods raters used to verify evidence about service-related stressors before granting compensation benefits and an error rate in compensation findings of 25% of veterans' cases.[38] Over the lifetimes of the veterans in this cohort alone, questionable payments would near $20 billion.[38]

The VA IG found that built-in disincentives to get well, including the potential to receive up to 100% disability on redeterminations of impairment, hamper treatment compliance.[38] Thirty-nine percent of annuitants had a decline in behavioral health visits after achieving 100% disability compensation, with an average decline in visits of 82%, with some veterans receiving no behavioral health treatment.[38]

The obvious lack of self-identification in malingerers and understandable limitations in methodology (conjecture; case or convenience sampling) hamper efforts to estimate the prevalence of symptom embellishment or malingering. Furthermore, among the cases with errors in compensation that the VA IG examined in 2005, 2.5% were considered "potentially fraudulent" by investigators, suggesting that fraud and malingered PTSD may not be as prevalent as suggested in some literature, and that previous study results should not be used to estimate the prevalence of fraud or malingered PTSD.[39]

***Case Study 7-1*:** A previously mobilized US Marine Corps reserve sergeant presented to a Joint Reserve Base Clinic with a chief complaint of "I can't get better." The patient was medically evacuated from Kuwait shortly after the outset of Operation Iraqi Freedom. Records surrounding the circumstances of the evacuation were not available. The patient related that he saw combat exposure; command emphatically rebutted this assertion, relating that the patient was a cook for the short duration of his overseas service. A limited duty medical board was written for the patient upon his return home, and it was renewed 6 months later. PTSD and major depressive disorder diagnoses were conferred. He was hospitalized three times in civilian hospitals for suicidal ideation since returning home. Outpatient care with several civilian psychiatrists and social workers failed to induce any clinical improvement. The Marine was arrested for an altercation with

his wife, who subsequently left him, and informed him to stay away from his children. He was unable to complete productive work for his command, and he was dismissed after an effort to return to moonlight at his previous job as a fast food manager.

While awaiting a disposition from a military provider 200 miles away from his reserve base, he consistently behaved strangely near others and refused to conform to military discipline mandates. Command related that the Marine has made "sneaky" but menacing gestures toward superiors. His command wanted to charge him for these infractions, but was hesitant to do so given his psychiatric history. In lieu of this action, he was restricted from weapons carriage and training.

Upon intake with a military psychiatrist, the patient appeared agitated and angry, but was speaking slowly and deliberately, with a tendency toward perseveration on themes of persecution and entitlement. He related that his command was preoccupied with punishing him for the smallest infractions. He denied any homicidal or aggressive impulses toward command members, his family, or anyone else. He denied any suicidal ideation since his last hospitalization 3 weeks prior. He engaged in solitary binge drinking every night since his discharge. He appeared to meet all seven diagnostic criteria for alcohol dependence. No psychosis or other impairment in reality testing was apparent, but the Marine endorsed eight of nine diagnostic criteria for depression for the entire period since his return home, and he endorsed all 17 diagnostic criteria for PTSD. He was unable to describe his trauma in any detail other than "heavy combat." Collateralization of intake data with the treating team revealed that the Marine had missed many appointments and failed many psychoactive drug trials, mainly resulting from noncompliance, and behaved erratically throughout the treatment.

Given evidence of dangerous behavior, ongoing substance abuse, and problems with diagnostic clarification, the military psychiatrist conferred provisional diagnoses of manic depressive disorder, severe PTSD, and chronic alcohol dependence, and arranged for the Marine to be assessed for inpatient psychiatric and substance abuse care at a military treatment facility with tertiary care capability. Several months after transfer, the Marine stabilized on a regimen of antidepressant and anxiolytic medication augmented by therapy and substance abuse treatment. A medical board was convened. History obtained subsequently failed to show that the Marine saw combat during his deployment, but it was established that he was assigned to graves registration duty, where he witnessed the dead bodies of war-wounded personnel. A disability finding ensued.

Malingering of Posttraumatic Stress Disorder

Military law distinguishes malingering by type (feigning illness or intentional self-injury) and setting (deployed or in a hostile fire pay zone vs in garrison or stateside). Punishments may be stratified, with greater punishments awarded for self-injury or malingering to avoid combat.[40] Despite its status as a validated and prevalent psychiatric disorder, PTSD is often associated with malingering. Several motives include avoiding prosecution or punishment, obtaining disability compensation, or avoiding duty, including imminent or ongoing combat deployment.

Case Study 7-2: A Marine Private First Class was being stabilized on a military treatment facility psychiatry ward with a mood stabilizer and atypical antipsychotic medication after presenting with a second manic episode, complicated by psychosis, in the months before admission. Charges were pending against this Marine secondary to an incident wherein he inflicted a gunshot wound through his thorax during a combat deployment overseas. Postsurgical stabilization included a psychiatric workup, which uncovered evidence of longstanding depressive disorder not otherwise specified and PTSD before his suicide attempt. After consultation with the staff judge advocate, his commander rendered charges against the Marine for malingering. Concomitant with the Article 32 hearing, defense counsel requested and the convening authority authorized a Rule of Court-Martial 706 sanity board.

No finding of malingering ensued after the Rule of Court-Martial 706 board was completed. The Marine was found not competent to stand trial and likewise was found unable to understand the nature and wrongfulness of his actions at the time of his suicide attempt. Ultimately, he was processed for discharge by a PEB and was awarded disability compensation by the VA.

Similar to most psychiatric disorders in adults without developmental delays or injuries or psychoses that impair a patient's ability to communicate, the PTSD diagnosis is partially made in a clinical interview and is thus susceptible to manipulation. The primary means of confirmation is corroboration of the patient's history. Persons who can describe the patient before and after the traumatic event occurred, and thus provide a longitudinal history, should be contacted.[41]

PTSD has the potential to be a severe, debilitating illness, and can yet also be an avenue for a patient's secondary gain. Recognizing that a patient motivated to malinger a PTSD diagnosis can easily access the *DSM-IV* criteria for PTSD, clinicians must interview patients with a balanced sense of shrewdness and

compassion while using evaluative tools reminiscent of when lengthy diagnostic sessions were the norm. Nondirective interviewing, which allows a patient to talk without interruption, can reveal inconsistencies between a related story and endorsements on a directed review of PTSD symptoms. A patient may be viewed with suspicion if he or she endorses all 17 diagnostic criteria of PTSD on a symptom review, but offers little of these symptoms when relating his or her story. In this vein a clinician should insist on vivid illustrations of inflection points. Details should be highly personal and convincing. Flashbacks, nightmares, or intrusive recollections should be fully described. Malingered symptoms have a tendency to be stereotyped and stilted.[31]

Malingering of PTSD may be common in motivated cohorts. Using a variety of validated forensic scales that describe symptom exaggeration, including the Minnesota Multiphasic Personality Inventory-2, the Structured Interview for Reported Symptoms (SIRS), the Structured Inventory of Malingered Symptomatology, and the Miller Forensic Assessment Test, one group of researchers examined symptom reports in a cohort presenting to a VA residential PTSD treatment program.[42] A majority (53%) exhibited symptom exaggeration on structured interviews and the SIRS scores correlated with severity of reported PTSD symptoms.[42]

Case Study 7-3: A Marine recruiter was transferred from a civilian facility to a psychiatry ward at a military treatment facility on a low-dose antipsychotic after complaining of bizarre auditory and visual hallucinations (reminiscent of horror movies); intrusive recollections, which were ascribed to vague traumatic exposures stemming from military duty by his civilian psychiatrist; avoidance of command members; and a desire to remain in hospital garb as opposed to his uniform. After transfer, his antipsychotic medication was stopped and his treating physician obtained collateral data from command. Command related that the recruiter had no psychiatric or medical history, was a mechanic in his last tour, had no combat or deployment experience, and failed miserably in his recruiting duties, primarily because of an introverted personality ill-suited to recruiting demands.

After reassurance and a discussion that a full recovery was expected, the Marine's medications were stopped and he was readied for discharge to command with an outpatient counseling referral. He was informed that he would not be eligible for discharge, reassignment, or a PEB. When his command came to collect him, he endorsed sights and smells of blood flowing up the wall. The Marine was retained on the ward, where several staff members observed him longitudinally. No collateral contacts could endorse a history of bizarre behavior. Psychological testing, including the Minnesota Multiphasic Personality Inventory-2 and the SIRS, was administered and results suggested symptom embellishment. A forensic evaluation ensued and the Marine was charged with malingering.

CONCLUSION

PTSD, a disorder with multifactorial predispositions, precipitants, and sequelae, intersects with issues (some controversial) of military law and forensic psychiatry on several fronts. From a military legal and administrative perspective, many advances await in regard to PTSD's etiology, nosology, and phenomenology. Developments vis-à-vis military jurisprudence, disability determinations, and clarification of PTSD to better serve the needs of the military mission and the people who advance it will inform medico-legal disposition of these cases for the foreseeable future.

The burden from troops suffering the "invisible wounds of war" as well as the significant scrutiny by Congress and advocacy organizations may inform policy change before definitive data accrue on the nature and sequelae of PTSD. As expertise in administrative and medico-legal disposition of PTSD cases spreads in medical and operational entities, global advances and concomitant social benefits may be expected.

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